



#18
7/8/98
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re U.S. Patent Application)

Applicant: KAO *et al.*)

Serial No.: 08/773,677)

Filed: December 24, 1996)

For: **ENVIRONMENTALLY STABLE**)
PRODUCTS DERIVED FROM)
THE REMEDIATION OF)
CONTAMINATED SEDIMENTS)
AND SOILS)

DECLARATION OF AMIR G. REHMAT UNDER 37 C.F.R. §1.132

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Dr. Amir G. Rehmat declares as follows:

1. That he currently is currently the Assistant Director of Thermal and Chemical Technologies of the Institute of Gas Technology where he has been employed since 1969.
2. That he received a PhD in Energy Engineering from University of Illinois in 1980.
3. That he has co-authored over 115 publications and that he is a named inventor on six U.S. patents.
4. That his research interests have included a strong effort in the study of the treatment of waste materials and the science and technology of such materials.
5. That he has read and is familiar with the above-identified patent application, U.S. Serial No. 08/773,677, of which he is a named inventor.

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6. That he has read and understood U.S. Patent No. 5,177,305 to Pichat and U.S. Patent No. 5,180,421 to Rostoker et al.

7. That the product of the subject invention, as recited in the claims of the subject application as last amended, had a leachate analysis performed under Standard EPA 1311 under my direction which, for every metal tested was lower by at least an order of magnitude than that reported by Pichat. Fe and Al were not tested for as they are not of concern in commercial uses.

8. Results of leach test

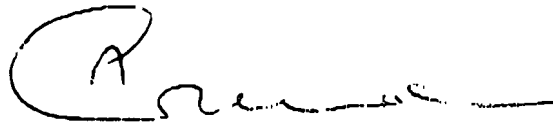
Element	Pichat		Applicant's Invention	
	ppm*	leachate (ppm)	Blended Cement (mg/kg)	leachate (mg/L)*
Ag	--	--	0.33	<0.001**
As	--	--	0.70	<0.005**
Be	--	--	0.67	<0.001**
Cd	2	0.1	0.27	<0.001**
Cr	--	--	247	0.152
Cu	90	0.1	124	0.008
Ni	--	--	164	<0.003**
Pb	0.5	0.2	11.8	<0.002**
Sb	--	--	0.32	<0.004**
Se	--	--	0.52	<0.003**
Zn	3	0.1	114.9	0.0145
Hg	--	--	--	<0.0004**
Fe	0.4	0.1	--	--
Al	20	<0.5	--	--
COD	9000	200 (mg/L)	--	--

* ppm is considered equivalent to mg/kg and mg/L

** tested below the detection limits available

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That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application of any patent issuing thereon.



Dr. Amir G. Rehmat